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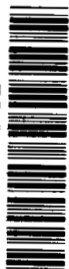
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PROVISIONAL HOURLY VALUES OF EQUATORIAL Dst FOR 1968

by Masahisa Sugiura and Shirley J. Cain

Goddard Space Flight Center

Greenbelt, Md. 20771



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Goddard Space Flight Center

INTRODUCTION

Hourly equatorial Dst values provide an index of geomagnetic activity as a function of universal time (UT). Large negative variations in Dst are produced by low-energy particles in the magnetosphere. Smaller variations are caused by changes in the solar-wind pressure exerted on the magnetospheric boundary. In addition, Dst may reflect variations in the magnetospheric tail current and field-aligned currents in the magnetosphere. At each UT, the disturbance field is averaged over local time (or longitude) so that Dst represents the constant term in a Fourier expansion in local time of the disturbance field on the geomagnetic equator.

The present report is a sequel to three previous publications, which gave hourly Dst values for the International Geophysical Year, July 1957 to December 1958 (Reference 1); the years 1961 through 1963 (Reference 2); and the years 1964 through 1967 (Reference 3). The method of data reduction is the same as that described earlier (References 2 and 3). The observatories are the same as for the previous publications (References 2 and 3), namely, Hermanus, San Juan, and Honolulu. The locations of these observatories are given in Table 1.

Table 1 – Coordinates of the observatories used.

Observatory	Geographic		Geomagnetic dipole latitude
	Latitude	Longitude	
Hermanus	-34.4°	19.2° E	-33.7°
Honolulu	21.3°	201.9°	21.1°
San Juan	18.4°	293.9°	29.9°

REFERENCE LEVEL

The reference level for each observatory was defined in a manner that took into account the secular variation. For each observatory, the reference level was expressed by a power series in time; the

coefficients for terms up to the quadratic were determined by the method of least squares using the annual means of the international quiet days. The power series is of the following form:

$$y = y_0 + a_1 t + a_2 t^2,$$

where y_0 , a_1 , and a_2 are constants and t is time measured in years from 1960.5. The constants y_0 , a_1 , and a_2 for the three observatories are listed in Table 2. The computed and observed values of H are compared in Table 3.

Table 2 - Values of y_0 , a_1 , and a_2 (γ).

Coefficient	Honolulu	Hermanus	San Juan
y_0	28,107.228	12,833.100	27,472.100
a_1	-11.357	-43.700	23.100
a_2	0.928	-3.500	-1.500

Table 3 - Comparison of observed and computed values of H .

Station	Epoch	Observed	Computed	Difference	Standard Deviation
Honolulu	1964.5	28,046 γ	28,047 γ	-1 γ	2.3 γ
	1965.5	28,029	28,027 γ	2	
	1966.5	28,006	28,006	0	
	1967.5	27,980	27,982	-2	
	1968.5	27,958	27,957	1	
Hermanus	1964.5	12,602 γ	12,602 γ	0 γ	1.3 γ
	1965.5	12,528	12,527	1	
	1966.5	12,444	12,445	-1	
	1967.5	12,356	12,356	0	
San Juan*	1965.5	27,550 γ	27,550 γ	0 γ	0.4 γ
	1966.5	27,557	27,557	0	
	1967.5	27,560	25,560	0	
	1968.5	27,561	27,561	0	

*The San Juan Observatory was moved in 1965 from the old site at 18°23'N, 293°53'E to a new location at 18°06.8'N, 293°51.2'E. The move resulted in a decrease in the horizontal component by 110 γ . The present determinations are based only on the observations made at the new site.

FIGURE AND TABLES OF DST FOR 1968

Hourly values of equatorial Dst for the year 1968 are shown graphically in Figure 1 and are tabulated in Table 4. Daily mean and monthly mean Dst values are given in Table 5.

ACKNOWLEDGMENTS

We wish to thank the Hermanus Magnetic Observatory and the Environmental Science Service Administration for making the data available. We are indebted to the staff of the World Data Center-A for Geomagnetism for their assistance in obtaining the data.

Goddard Space Flight Center
National Aeronautics and Space Administration
Greenbelt, Maryland, December 7, 1970
188-36-51-01-51

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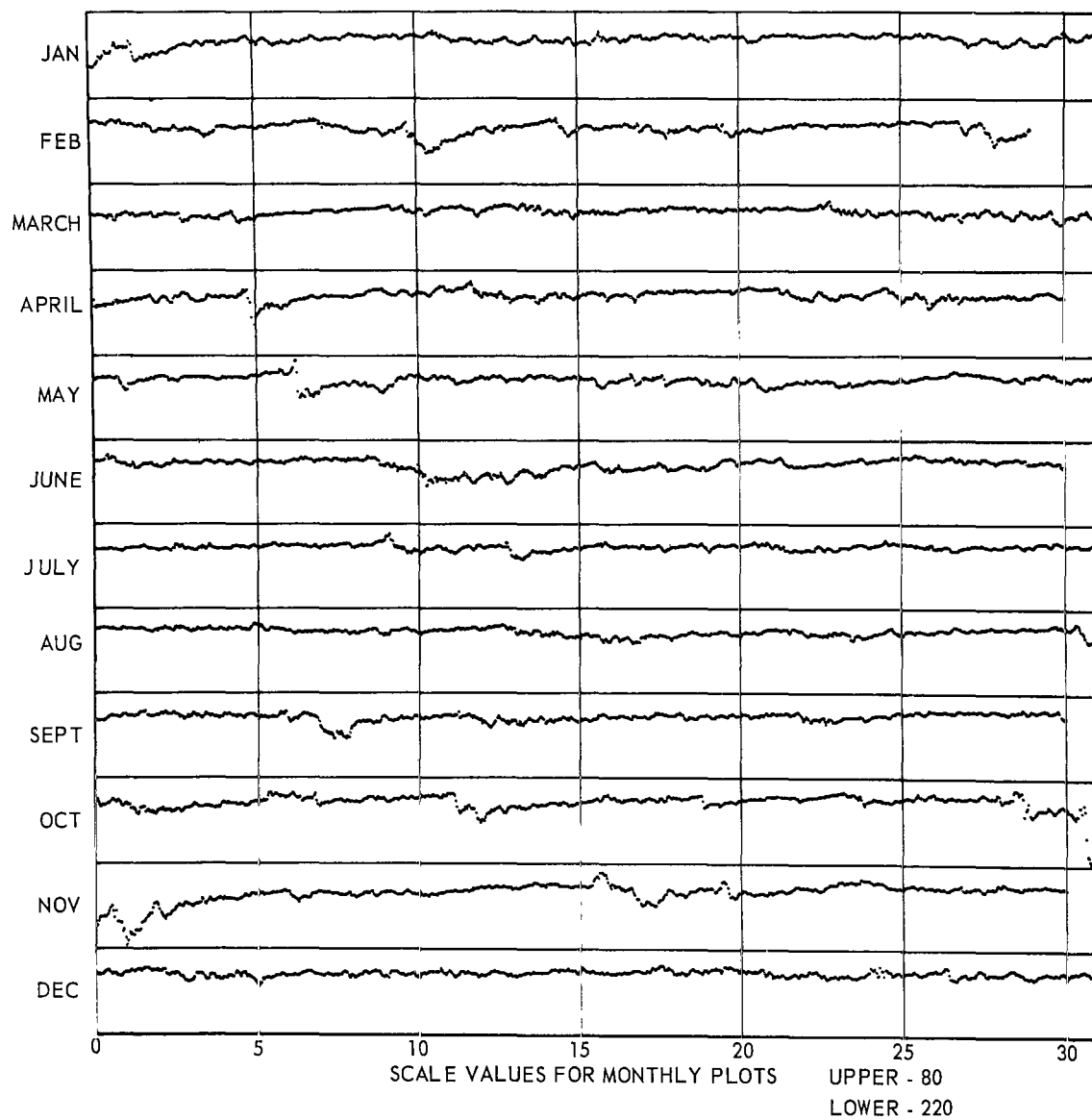


Figure 1—Provisional Dst for 1968.

Table 4 – Monthly tables of hourly Dst values for 1968.

JANUARY 1968

DAY	UNIT=GAMMAS																G.M.T.							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1	-105	-110	-112	-109	-101	-95	-88	-75	-80	-79	-71	-57	-62	-53	-64	-63	-55	-38	-26	-31	-45	-45	-40	-38
2	-40	-44	-42	-44	-39	-23	-34	-58	-73	-84	-98	-83	-31	-72	-77	-76	-76	-69	-66	-67	-73	-73	-67	-64
3	-62	-65	-60	-62	-57	-56	-58	-59	-63	-59	-58	-52	-49	-46	-44	-44	-40	-36	-33	-32	-33	-30	-29	-32
4	-32	-35	-35	-35	-33	-24	-20	-21	-25	-33	-35	-31	-31	-27	-21	-21	-24	-23	-22	-24	-21	-31	-36	-29
5	-31	-20	-22	-25	-23	-25	-20	-19	-18	-17	-15	-15	-21	-15	-15	-12	-6	-5	-2	-3	-11	-12	-24	-28
6	-19	-21	-34	-29	-17	-13	-11	-10	-12	-16	-19	-23	-29	-23	-35	-28	-34	-28	-26	-28	-25	-13	-24	-26
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9	4	3	0	-2	-2	0	0	-1	-1	0	0	-1	-3	-5	-4	-7	-8	-12	-13	-11	-10	-4	-5	-5
10	-5	-1	-3	-3	-5	-5	-6	-2	2	-1	-4	-5	-12	-15	-13	-12	-8	-3	-2	-4	-4	-0	-3	-3
11	-2	-4	-5	-6	-7	-8	-7	-2	2	5	8	8	5	17	6	6	8	-1	-11	1	-1	-7	-7	-9
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13	-22	-22	-24	-25	-27	-30	-29	-26	-28	-31	-23	-21	-21	-22	-18	-17	-15	-13	-9	-11	-14	-22	-25	-25
14	-24	-28	-30	-32	-33	-32	-30	-27	-27	-27	-26	-21	-19	-21	-15	-10	-4	-2	-6	-15	-19	-21	-23	-24
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25	-8	-10	-7	-4	-5	-9	-10	-7	-3	-1	1	5	7	4	1	4	6	6	2	-2	-3	-2	1	-1
26	-4	-7	-6	-2	-2	-6	-7	-8	-5	-4	-0	4	2	1	7	2	-3	-8	-1	6	7	4	5	-3
27	0	2	-1	0	-1	-7	-10	-11	-12	-12	-8	-5	-4	-6	-6	-5	-9	-9	-12	-14	-14	-19	-23	-29
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29	-28	-33	-33	-40	-37	-33	-36	-36	-33	-29	-26	-24	-22	-20	-14	-8	-6	-10	-18	-17	-16	-21	-25	-31
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FEBRUARY 1968

DAY	UNIT = GAMMAS																G.M.F.							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
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2	-10	-8	-13	-12	-12	-11	-11	-13	-15	-17	-17	-12	-13	-18	-17	-8	-8	-19	-15	-17	-22	-34	-33	-37
3	-36	-31	-27	-28	-26	-27	-28	-28	-31	-33	-30	-28	-21	-14	-19	-24	-34	-35	-31	-31	-30	-25	-24	-31
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19	-35	-24	-35	-36	-32	-36	-31	-30	-25	-23	-19	-19	-24	-28	-30	-31	-34	-35	-31	-30	-27	-23	-21	-20
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28	-43	-38	-27	-23	-15	-15	-11	-14	-9	-3	2	-3	-7	-17	-32	-36	-38	-39	-50	-65	-82	-94	-74	-59
29	-61	-56	-51	-60	-60	-62	-60	-58	-57	-51	-55	-56	-56	-47	-44	-44	-49	-44	-38	-44	-40	-30	-23	-24

MARCH 1953

DAY	UNIT=GAMMAS																G. W. T.							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1	-27	-29	-29	-29	-25	-25	-29	-29	-29	-33	-35	-39	-33	-31	-33	-37	-47	-50	-37	-29	-23	-29	-25	-23
2	-22	-19	-18	-24	-30	-25	-23	-29	-33	-31	-30	-29	-27	-23	-25	-24	-24	-27	-24	-18	-22	-33	-32	-34
3	-33	-26	-26	-27	-24	-22	-20	-20	-21	-24	-24	-20	-25	-27	-25	-23	-22	-41	-51	-50	-45	-45	-47	-45
4	-38	-33	-32	-32	-34	-35	-33	-32	-35	-38	-36	-41	-37	-33	-33	-37	-39	-42	-39	-40	-41	-43	-33	-31
5	-28	-29	-27	-21	-22	-21	-16	-17	-28	-36	-49	-52	-56	-49	-44	-45	-44	-43	-41	-37	-43	-42	-43	-44
6	-39	-33	-33	-30	-29	-29	-27	-28	-30	-23	-28	-26	-28	-28	-27	-25	-24	-24	-24	-24	-25	-23	-23	-23
7	-21	-20	-20	-21	-21	-20	-21	-22	-21	-22	-23	-25	-23	-21	-22	-23	-22	-21	-19	-16	-13	-13	-15	-15
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10	1	-1	3	3	-5	-11	-12	-6	-8	-8	-5	-3	-1	3	-5	-13	-18	-13	-12	-17	-21	-21	-20	-15
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19	-4	-3	-4	-4	-3	-2	-4	-5	-1	-3	-7	-0	-1	-3	-0	-1	-3	-13	-9	-6	-6	-4	-4	-7
20	-7	-10	-15	-8	-9	-7	-7	-10	-12	-13	-11	-18	-16	-10	-9	-5	-5	-6	-6	-11	-8	-6	-11	-10
21	-5	-9	-9	-9	-3	-3	-3	-7	-9	-9	-7	-5	-3	-5	-11	-14	-14	-9	-8	-4	-4	-3	-1	-2
22	-4	-5	-3	-3	-4	-5	-9	-9	-7	-5	-4	-3	-1	-1	-3	-1	-2	-4	-4	-6	-5	-7	-7	-7
23	-7	-7	-5	-5	-5	-4	-5	-4	-2	1	2	7	11	9	1	2	7	12	20	21	7	-2	-6	-9
24	-10	-4	-6	-14	-21	-13	-8	-20	-22	-15	-12	-22	-25	-15	-8	-13	-18	-23	-28	-26	-25	-24	-13	-3
25	-9	-15	-22	-25	-20	-26	-34	-29	-18	-20	-22	-17	-21	-21	-19	-14	-14	-12	-14	-18	-26	-27	-22	-18
26	-16	-16	-15	-15	-13	-14	-18	-13	-11	-10	-10	-9	-12	-12	-13	-18	-21	-21	-23	-21	-16	-15	-17	-26
27	-34	-39	-35	-32	-23	-32	-40	-42	-33	-26	-25	-27	-25	-24	-23	-27	-28	-21	-22	-40	-48	-47	-34	-31
28	-26	-21	-20	-21	-23	-23	-20	-24	-30	-29	-22	-15	-14	-11	-6	-3	-6	-5	-16	-20	-19	-24	-23	-21
29	-17	-13	-10	-17	-23	-31	-29	-28	-35	-40	-41	-40	-35	-26	-24	-23	-11	-9	-19	-20	-20	-22	-24	-33
30	-38	-32	-27	-26	-31	-32	-32	-34	-26	-26	-26	-25	-19	-12	-10	-18	-39	-46	-52	-49	-58	-60	-59	-49
31	-42	-37	-33	-32	-32	-30	-29	-35	-33	-36	-32	-23	-20	-19	-19	-15	-11	-20	-25	-33	-31	-36	-39	-36

APRIL 1933

DAY	UNIT=GAMMAS																G.M.T.							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1	-26	-30	-53	-46	-47	-44	-46	-43	-41	-50	-42	-41	-40	-41	-40	-34	-28	-25	-35	-32	-32	-33	-33	-32
2	-30	-29	-32	-26	-23	-23	-22	-21	-21	-19	-19	-21	-19	-16	-14	-14	-12	-10	-8	-20	-27	-31	-32	-35
3	-30	-24	-15	-17	-9	-15	-18	-25	-32	-32	-32	-19	-10	-10	-15	-12	-7	-1	1	-0	-2	-4	-17	-18
4	-24	-24	-27	-30	-32	-30	-29	-28	-27	-26	-22	-14	-7	-7	-11	-14	-13	-13	-10	-14	-17	-13	-13	-12
5	-13	-11	-14	-14	-13	-12	-11	-11	-13	-14	-11	-5	-6	-1	10	6	9	10	-13	-35	-84	-126	-112	-87
6	-80	-73	-62	-58	-55	-57	-46	-40	-39	-51	-46	-39	-44	-47	-44	-45	-46	-51	-55	-52	-46	-41	-45	-43
7	-37	-31	-23	-25	-27	-25	-27	-23	-22	-23	-24	-20	-21	-13	-18	-14	-10	-10	-12	-15	-13	-13	-17	-15
8	-12	-10	-8	-9	-9	-11	-11	-9	-9	-9	-10	-12	-12	-11	-11	-12	-13	-12	-12	-11	-13	-14	-16	-14
9	-11	-9	-9	-8	-7	-6	-6	-6	-5	-0	5	7	9	3	11	11	10	11	13	13	15	11	6	4
10	3	-1	-2	-5	-7	-7	-6	-8	-6	-0	4	7	9	9	3	6	3	-2	-9	-12	-12	-3	-3	2
11	2	2	-1	2	-0	1	-3	-9	-10	-5	-2	3	9	13	16	20	22	23	22	21	12	8	7	10
12	7	5	3	7	13	14	18	15	18	15	21	23	29	34	35	41	31	17	5	13	0	3	-9	-15
13	-10	-2	0	-7	-7	-2	-2	-4	-8	-8	-7	-15	-2	3	3	-7	-19	-20	-16	-17	-20	-35	-25	-21
14	-22	-17	-17	-10	-9	-12	-12	-7	-6	-8	-10	-11	-15	-12	-10	-13	-29	-32	-32	-22	-20	-21	-21	-17
15	-13	-8	-5	-3	-2	-2	-1	-1	-3	-15	-16	-13	-3	2	-4	-10	-9	-12	-14	-20	-21	-19	-14	-11
16	-13	-14	-8	-4	-3	-0	-3	-0	2	1	4	2	-1	-1	-3	-6	-2	-0	-2	-5	-13	-24	-24	-16
17	-10	-9	-7	-6	-3	-5	-5	-6	-6	-7	-5	-5	-3	-5	-9	-10	-10	-17	-28	-22	-12	-7	-2	-1
18	-2	3	9	0	1	2	2	2	2	-1	1	6	5	5	5	4	2	5	6	5	2	0	1	10
19	3	5	7	7	6	7	8	9	11	9	5	7	5	6	3	2	2	4	5	5	7	7	6	5
20	5	0	7	6	6	7	9	10	10	10	8	7	7	9	9	10	10	6	1	0	2	8	11	13
21	14	14	15	14	15	17	19	21	20	19	17	16	14	13	11	10	13	13	14	12	14	12	15	14
22	12	15	19	16	19	13	3	-0	0	-0	6	12	11	5	-2	-5	-8	-7	-11	-14	-12	-14	-22	-18
23	-14	-18	-20	-19	-24	-27	-28	-21	-11	-3	4	6	6	5	-4	-7	-6	-6	-14	-20	-17	-15	-19	-23
24	-24	-19	-15	-6	-5	-9	-8	-4	-4	-4	-4	-2	-4	-6	-9	-10	-7	-11	-18	-19	-17	-11	-7	-5
25	-4	-2	-0	3	3	5	8	9	8	11	15	17	20	19	13	6	3	4	3	-0	-9	-9	-15	-17
26	-27	-30	-25	-17	-13	-13	-10	-11	-13	-11	-2	3	-1	-5	-12	-14	-11	-7	-20	-31	-50	-53	-47	-35
27	-41	-35	-23	-23	-21	-17	-11	-11	-15	-21	-17	-4	-4	-13	-20	-19	-15	-11	-14	-32	-26	-23	-14	-10
28	-10	-14	-17	-17	-15	-13	-18	-17	-12	-15	-12	-8	-6	-6	-11	-17	-16	-11	-12	-15	-14	-13	-16	-17
29	-10	-10	-9	-7	-0	-12	-13	-5	-8	-14	-10	-7	-10	-15	-20	-20	-20	-14	-14	-13	-18	-14	-16	-20
30	-14	-8	-7	-2	-1	-2	-1	1	-1	1	1	3	4	1	-0	-3	-3	-6	-9	-13	-15	-15	-15	-13

MAY 1968

DAY	UNIT=GAMMAS																						G.W.T.	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1	-7	-5	-1	-0	0	2	2	1	-0	1	3	2	1	1	-3	-1	4	-0	-10	-19	-22	-34	-39	-46
2	-40	-22	-24	-21	-20	-20	-15	-11	-6	-6	-9	-12	-10	-9	-5	-8	-4	1	-2	-3	4	3	3	6
3	3	9	3	7	5	3	-7	-6	-4	-4	-7	-7	-10	-10	-6	-1	1	3	4	5	5	4	3	3
4	4	5	2	5	5	5	3	2	-1	3	5	4	2	-1	-2	-1	-3	-5	-7	-3	-2	-1	3	1
5	1	2	3	2	2	2	2	4	5	4	1	2	2	1	-1	1	2	3	7	9	8	8	9	9
6	8	8	12	15	15	13	21	19	15	17	18	18	17	18	17	20	31	28	24	17	13	12	13	16
7	23	29	36	58	63	17	-47	-73	-65	-57	-62	-69	-42	-40	-52	-62	-61	-69	-59	-53	-53	-55	-49	-37
8	-31	-31	-29	-28	-31	-28	-27	-25	-22	-24	-28	-29	-23	-19	-18	-14	-16	-18	-22	-27	-27	-21	-13	-11
9	-12	-15	-15	-22	-26	-25	-22	-15	-19	-23	-31	-30	-27	-28	-28	-29	-34	-37	-42	-49	-50	-54	-48	-42
10	-36	-32	-27	-28	-29	-23	-12	-7	-1	0	4	2	-4	-3	-3	5	10	12	9	7	3	4	10	7
11	10	4	2	-1	-5	-3	-8	-4	2	4	9	13	8	-1	-4	3	5	7	4	1	4	9	5	0
12	-9	-2	-8	-19	-23	-20	-19	-17	-12	-11	-11	-15	-15	-10	-11	-12	-8	-3	-1	-2	-2	1	6	5
13	-2	-3	-1	-1	-2	-1	5	7	7	4	3	4	6	5	0	-3	-6	-14	-12	-9	-4	-4	-5	-3
14	-3	-3	-4	-1	-7	-8	-6	-0	5	9	12	10	7	5	2	3	5	8	6	11	12	10	9	4
15	4	4	7	6	-1	5	-0	-5	-8	-8	-3	-2	-2	0	2	4	1	0	1	5	6	2	1	2
16	-3	2	-2	-5	-5	-5	-4	-3	-5	1	1	-3	-13	-22	-25	-27	-30	-33	-31	-28	-23	-15	-11	-10
17	-10	-10	-13	-17	-18	-15	-7	-7	-4	-4	-4	-1	-1	1	14	11	2	-8	-24	-23	-17	-16	-10	-2
18	-2	2	-2	-3	-2	-5	-6	2	-2	-2	3	3	5	8	10	-4	-22	-27	-24	-18	-15	-12	-12	-12
19	-7	-6	-7	-7	-5	-5	-2	-3	-3	0	1	-1	-5	-3	-0	-1	-5	-7	-16	-14	-22	-18	-13	-5
20	-6	-12	-21	-22	-24	-21	-19	-14	-15	-19	-21	-20	-22	-26	-28	-27	-24	-15	-2	5	5	-5	-10	-22
21	-18	-14	-13	-15	-15	-12	-9	-6	-0	-0	-5	-9	-15	-24	-31	-32	-35	-39	-42	-45	-43	-40	-34	-32
22	-33	-36	-38	-35	-31	-35	-35	-34	-29	-25	-23	-19	-18	-18	-17	-18	-15	-17	-13	-13	-15	-16	-14	-20
23	-17	-9	-7	-13	-14	-15	-15	-10	-7	-7	-7	-12	-14	-15	-12	-10	-11	-9	-15	-13	-13	-11	-17	-24
24	-25	-27	-31	-25	-27	-25	-24	-25	-22	-17	-16	-25	-28	-25	-22	-21	-22	-18	-20	-24	-18	-14	-16	-11
25	-9	-12	-13	-14	-12	-11	-10	-9	-8	-7	-5	-10	-10	-9	-10	-13	-15	-13	-11	-14	-13	-10	-6	-1
26	1	-4	-7	-12	-10	-10	-6	-5	-4	-3	-4	-4	-1	1	2	1	2	6	7	8	7	3	2	2
27	3	2	3	3	6	7	9	7	7	8	10	13	18	20	22	25	23	21	17	13	15	15	15	14
28	18	17	17	14	14	12	13	15	15	15	13	8	9	11	7	9	6	7	8	8	5	3	1	3
29	2	0	-3	-8	-9	-6	-7	-7	-4	-3	-1	4	5	0	-2	-6	-10	-10	-11	-1	3	2	1	5
30	7	9	5	4	3	2	6	11	13	15	12	14	14	6	4	9	11	8	-3	-3	-5	-7	-8	-9
31	-9	-8	-6	-11	-13	-10	-5	-2	0	2	3	-0	-4	-3	2	5	5	-4	-1	5	8	9	3	5

JUNE 1958

	UNIT=GAMMAS																								G.M.T.	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
DAY																										
1	2	5	4	5	6	7	7	10	20	25	12	15	18	20	14	3	-2	-2	-3	-4	-3	-3	-5	-12		
2	-13	-15	-11	-2	-10	-13	-20	-20	-17	-11	-7	-4	-5	-4	-3	-4	-1	1	-8	-13	-11	-7	-14	-16		
3	-14	-15	-11	-7	-4	-5	-9	-6	-1	7	11	4	3	-1	-1	1	-1	2	2	4	1	-4	-6	-3		
4	-3	-4	-2	-5	-3	-4	-2	2	6	8	5	5	7	4	-1	-3	-2	0	2	5	4	3	2	-0		
5	-5	-4	-2	-2	-3	0	2	6	7	7	6	4	-0	-0	-1	-5	-5	-6	-5	-2	2	3	7	8		
6	8	8	5	2	1	3	3	3	6	8	5	3	-1	-1	-1	1	2	-2	-6	-4	4	4	4	7		
7	6	10	9	10	8	5	11	19	14	11	17	14	13	11	10	10	2	-1	2	5	9	9	9	10		
8	13	14	14	12	12	8	9	11	13	15	14	11	10	7	10	12	4	3	13	8	9	11	10	14		
9	13	13	10	8	7	5	7	10	13	21	18	16	15	17	19	15	10	7	-6	-7	-7	-11	-13	-4		
10	-4	-7	-15	-17	-11	-6	-17	-30	-20	-23	-17	-20	-24	-23	-21	-20	-20	-21	-24	-22	-27	-34	-7	-37		
11	-32	-33	-48	-43	-46	-82	-80	-64	-62	-55	-71	-53	-54	-68	-59	-57	-60	-61	-63	-58	-70	-61	-61	-60		
12	-63	-58	-54	-52	-53	-63	-52	-47	-44	-36	-41	-48	-52	-57	-54	-68	-70	-73	-69	-62	-56	-53	-43	-47		
13	-44	-41	-39	-44	-41	-53	-60	-44	-44	-47	-52	-51	-39	-49	-53	-62	-66	-72	-74	-72	-68	-69	-60	-51		
14	-46	-43	-34	-31	-31	-28	-22	-29	-27	-28	-35	-34	-36	-45	-52	-50	-45	-41	-49	-52	-45	-49	-47	-39		
15	-34	-30	-27	-26	-25	-22	-23	-25	-22	-18	-13	-11	-10	-13	-13	-14	-11	-14	-19	-22	-17	-16	-13	-12		
16	-11	-10	-11	-10	-10	-9	-5	-4	-2	0	0	3	-6	-9	-11	-14	-17	-22	-29	-21	-21	-20	-33	-31		
17	-29	-30	-23	-21	-20	-8	-19	-23	-29	-27	-25	-30	-23	-27	-28	-26	-25	-24	-24	-23	-20	-18	-23	-24		
18	-23	-20	-18	-16	-15	-14	-13	-12	-14	-12	-7	-1	-4	-9	-14	-12	-15	-22	-29	-27	-25	-27	-26	-26		
19	-25	-25	-19	-19	-17	-14	-14	-13	-11	-14	-15	-16	-18	-20	-24	-22	-22	-27	-25	-20	-15	-16	-26	-28		
20	-22	-20	-15	-14	-13	-12	-8	-4	-4	4	7	9	12	11	11	11	13	12	12	9	2	-9	-10	-6		
21	-1	0	-1	1	2	3	3	1	1	2	4	7	12	13	14	13	9	10	10	8	7	5	4	3		
22	2	4	5	9	15	16	17	13	3	-5	-9	-11	-12	-10	-10	-13	-15	-14	-13	-17	-12	-13	-15	-15		
23	-13	-13	-12	-10	-8	-9	-8	-7	-10	-9	-9	-7	-6	-6	-7	-5	-1	-2	-2	-4	-5	-7	-7	-3		
24	-3	-1	-2	-3	-2	-0	3	5	5	5	5	6	6	6	7	8	9	13	15	14	9	5	1	1		
25	2	3	3	6	6	5	5	6	7	8	9	11	12	10	11	11	14	19	17	14	15	16	19	15		
26	15	18	21	21	21	16	18	20	23	27	29	30	23	27	26	22	23	23	15	11	11	12	6	11		
27	12	13	11	10	10	11	9	10	11	14	19	16	13	20	19	11	7	8	12	16	10	5	-7	-1		
28	3	11	9	8	6	7	9	9	7	4	9	14	15	15	15	12	8	7	4	4	2	-4	-1	3		
29	3	6	7	11	9	9	11	11	12	11	12	14	13	15	15	12	7	6	11	12	-4	-5	-1	-5		
30	-3	-0	-1	-4	-1	-0	2	3	1	1	3	6	5	2	-1	-3	-5	-6	-1	1	-1	-10	-15	-12		

JULY 1958

DAY	UNIT=GAMMAS																G.M.T.							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1	-5	-10	-10	-9	-8	-9	-9	-9	-8	-9	-4	-3	-7	-7	-8	-9	-13	-11	-14	-14	-12	-7	-6	-4
2	-3	-6	-5	-2	-1	0	0	-2	-1	2	3	5	4	1	-5	-4	-6	-4	-4	-7	-8	-10	-10	-9
3	-9	-9	-5	-5	-3	-7	-10	-13	-6	-3	7	9	5	0	3	5	1	-7	-6	-3	-4	-8	-9	-9
4	-11	-11	-8	-3	-2	-3	2	-2	-7	-5	4	9	2	-2	-4	-4	-5	-7	-4	-4	-4	-4	-7	-5
5	-5	-4	-4	-3	2	3	3	5	3	2	1	2	2	-1	1	-0	-5	1	4	5	6	3	0	0
6	-0	-2	-3	6	3	2	5	7	8	12	16	13	10	5	3	5	7	9	9	5	4	2	4	5
7	6	5	5	8	10	8	6	7	4	3	5	5	-1	0	0	1	4	6	5	-0	-3	-4	2	3
8	8	5	5	5	7	6	10	7	5	7	7	9	10	11	12	13	10	15	13	11	8	1	-1	1
9	2	3	5	8	10	8	5	6	6	8	9	9	8	9	14	19	19	21	21	19	20	24	33	41
10	35	50	27	23	7	1	3	-6	-2	-2	-9	-1	-4	-15	-22	-17	-18	-22	-16	-10	-14	-12	-16	-17
11	-22	-20	-15	-17	-9	-5	-10	-9	-9	-8	-4	-1	3	3	5	1	-5	-7	-7	-5	-11	-15	-19	-17
12	-19	-24	-22	-18	-13	-10	-7	-4	-1	-2	0	4	4	-1	-5	-9	-13	-6	2	6	7	3	-2	-4
13	-3	-3	-2	1	4	1	1	2	-1	2	4	5	3	0	0	0	16	14	-2	-13	-33	-33	-36	-40
14	-31	-39	-37	-42	-44	-43	-37	-33	-33	-30	-22	-15	-12	-14	-17	-20	-20	-15	-20	-19	-15	-15	-19	-19
15	-21	-24	-19	-15	-12	-12	-15	-14	-12	-11	-7	-3	-5	-8	-11	-12	-11	-8	-7	-2	0	-4	-6	-6
16	-6	-4	-2	2	-1	1	3	4	5	1	4	7	8	8	11	13	3	12	19	17	12	7	3	2
17	1	-3	-2	-1	0	1	3	4	3	4	5	4	0	3	3	4	3	2	3	1	-4	1	6	6
18	2	-3	1	-3	-2	-3	-1	-1	-0	3	6	7	-0	-5	-13	-16	-12	-9	-9	-3	-0	-1	-1	-0
19	0	1	2	5	3	5	4	4	2	5	9	10	8	7	5	4	3	7	11	12	7	-0	-2	-8
20	-16	-13	-5	1	3	3	5	8	9	7	8	6	5	4	5	6	7	10	11	10	7	4	3	4
21	4	3	5	7	7	8	9	9	12	15	20	18	10	3	6	11	13	11	9	14	16	9	2	-2
22	-3	3	5	5	5	-5	-6	0	5	-11	-13	-11	-13	-15	-14	-13	-8	-7	-13	-12	-14	-15	-12	-11
23	-10	-9	-8	-9	-12	-13	-13	-11	0	2	5	3	-1	-7	-10	-12	-5	-0	-1	-3	-7	-12	-12	-12
24	-13	-7	-0	1	0	0	0	-1	-3	-2	-1	2	6	5	3	9	10	10	10	9	8	5	2	1
25	0	3	3	4	5	6	7	6	10	11	15	19	25	17	12	12	13	16	16	14	12	11	9	12
26	10	13	13	9	10	10	11	11	9	8	5	9	7	5	2	3	0	-1	6	-1	1	10	10	1
27	-3	-3	-5	-1	-2	-4	-1	1	4	5	4	0	-9	-11	-10	-13	-12	-13	-9	-5	-3	-2	-1	-0
28	-0	2	1	2	5	3	6	6	6	6	8	11	7	4	2	4	-0	-0	-1	3	5	1	-1	-3
29	0	-0	1	2	5	8	7	6	7	8	8	10	11	13	10	6	3	-1	-3	1	3	6	6	4
30	1	3	6	11	13	13	14	14	13	14	13	11	7	4	5	12	17	17	18	17	16	12	9	9
31	3	4	3	10	8	8	10	12	10	11	11	5	3	3	3	1	2	5	7	9	10	12	12	10

AUGUST 1968

	UNIT=GAMMAS																S.M.T.							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
DAY																								
1	9	9	12	15	14	15	16	14	12	11	9	11	13	9	5	6	7	6	9	13	12	12	11	11
2	10	9	9	9	10	10	10	11	12	12	10	10	7	4	2	2	-0	-1	4	6	6	4	9	9
3	9	11	10	14	10	11	10	8	3	8	15	17	14	10	15	13	14	11	8	9	2	-1	2	5
4	4	5	15	11	8	9	8	12	12	11	15	17	12	7	3	7	6	8	11	13	10	9	8	7
5	7	13	10	10	9	9	12	16	16	14	14	8	10	8	9	7	7	9	18	23	28	24	24	23
6	19	21	15	11	3	2	4	7	12	13	12	12	11	11	9	6	5	9	5	1	1	3	4	4
7	-4	-6	-7	-4	-2	-0	-1	-6	-4	-2	-3	-5	-2	-2	-3	-2	0	2	-1	-2	-1	2	4	5
8	-4	1	-3	-2	3	0	-1	5	3	2	3	3	-0	-2	-1	3	1	-2	-8	-8	-6	-4	-2	-1
9	-7	-7	-3	-2	-1	-3	-1	3	5	6	7	8	5	9	10	7	1	-10	-8	-8	-15	-10	-7	-13
10	-12	-4	4	4	2	2	3	1	3	6	8	8	12	12	9	6	3	1	3	2	-1	-5	-9	-12
11	-11	-7	-4	1	-0	-1	1	2	4	5	6	3	3	4	5	5	5	1	2	4	3	4	5	5
12	4	0	3	11	12	11	8	10	11	8	9	9	9	11	13	13	13	13	11	5	2	5	10	6
13	7	10	10	10	14	14	16	17	18	19	18	16	20	21	20	17	11	6	12	13	8	10	9	-5
14	-13	-8	-4	2	-6	-3	0	-0	-4	-8	-12	-8	-4	2	2	3	3	-2	-16	-13	-15	-14	-10	-13
15	-14	-9	-8	-1	-13	-7	-3	-5	-8	-8	-11	-18	-21	-23	-22	-22	-20	-18	-20	-23	-21	-18	-21	-21
16	-23	-12	-13	-13	-9	-8	-14	-19	-20	-17	-16	-15	-16	-14	-16	-26	-31	-38	-25	-27	-36	-37	-33	-25
17	-18	-18	-18	-15	-22	-34	-33	-27	-28	-23	-22	-20	-23	-30	-36	-41	-40	-39	-36	-37	-39	-25	-19	-21
18	-23	-18	-17	-18	-11	-14	-16	-18	-17	-19	-14	-12	-13	-16	-18	-16	-18	-20	-21	-26	-30	-25	-20	-21
19	-20	-16	-14	-12	-12	-13	-13	-11	-8	-5	-3	-2	-2	-5	-5	-6	-9	-13	-13	-14	-13	-12	-10	-11
20	-11	-8	-5	-3	-3	-3	-3	-2	-1	1	-1	-2	-2	0	-1	-7	-12	-13	-13	-14	-13	-13	-14	-15
21	-12	-10	-6	-5	-3	-3	-7	-7	-5	-2	-0	-5	-7	-7	-5	-3	0	2	2	5	7	5	7	5
22	6	8	10	7	5	4	5	6	6	5	5	-2	-5	3	10	12	9	5	2	4	4	2	-1	-7
23	-12	-14	-13	-14	-6	-10	-9	-9	-9	-11	-11	-13	-15	-11	-12	-12	-16	-9	-6	-8	-12	-2	-3	-10
24	-6	-7	-4	-1	-1	-7	-5	-8	-10	-14	-26	-30	-27	-15	-11	-11	-13	-16	-22	-21	-24	-21	-20	-15
25	-16	-10	-12	-10	-10	-9	-7	-5	-4	-3	-2	-1	3	6	9	11	12	6	0	-1	-7	-6	-11	-11
26	-11	-8	-1	3	2	2	2	2	0	-3	-0	2	2	2	2	1	0	-2	-3	-5	-3	-1	-2	-3
27	-0	3	1	0	6	7	7	2	1	2	-1	2	5	11	17	18	17	15	13	9	8	7	5	3
28	1	3	5	9	9	7	7	8	8	8	11	9	8	10	13	14	15	17	16	14	11	12	11	12
29	12	11	12	13	13	13	13	12	11	12	10	8	11	12	12	15	18	18	16	15	14	15	16	15
30	13	11	9	11	13	12	13	12	14	13	14	15	18	21	21	23	26	24	19	19	21	16	12	14
31	16	13	8	9	15	10	23	31	31	30	15	8	2	-5	-14	-26	-35	-35	-32	-31	-22	-20	-18	-16

SEPTEMBER 1968

DAY	UNIT=GAMMAS																								G.M.T.			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24				
1	-16	-18	-15	-17	-15	-18	-17	-14	-7	-3	0	1	-0	-2	-2	-3	-4	-3	-3	2	5	5	1	-3				
2	-2	-0	-0	-1	-0	1	3	8	13	14	13	15	18	4	2	-0	-1	-3	-2	1	4	4	3	9				
3	8	5	13	15	7	7	7	7	14	11	8	6	1	-3	-2	-4	-12	-3	-6	1	-6	-1	6	11				
4	5	0	2	2	-4	-9	-3	2	8	5	4	0	3	1	-3	-6	-3	-5	-8	-6	-3	0	5	5				
5	7	0	8	3	0	3	0	-5	1	1	0	-3	-10	-5	2	3	5	5	5	4	5	0	-1	-7				
6	-3	-2	-4	-4	-2	-0	-8	-7	-5	-4	-3	-5	-6	-3	3	10	13	6	6	12	14	-9	-15	-25				
7	-17	-13	-9	-8	-11	-7	-1	4	7	10	8	5	5	-2	2	0	-3	-7	-5	-9	-19	-34	-42	-50				
8	-56	-54	-62	-58	-60	-62	-69	-79	-79	-59	-62	-65	-59	-65	-71	-77	-79	-74	-75	-61	-47	-39	-34	-31				
9	-23	-20	-21	-25	-20	-10	-21	-21	-17	-19	-13	-19	-25	-29	-25	-22	-23	-23	-17	-6	-1	-3	-7	-11				
10	-15	-15	-13	-20	-17	-15	-15	-14	-9	-1	-9	-13	-9	-10	-10	-11	-12	-14	-10	-2	-1	-2	-7	-9				
11	-9	-9	-12	-10	-7	-9	-10	-9	-7	-2	-2	-0	-1	-2	-4	-4	-1	2	1	3	4	3	2	-2				
12	-1	1	2	1	13	-7	-7	-1	-1	-2	1	4	8	-2	-9	-4	-1	-7	-8	-11	-15	-13	-26	-22				
13	-23	-28	-35	-39	-42	-38	-31	-24	-19	-10	-2	-9	-18	-15	-17	-23	-29	-21	-30	-23	-16	-20	-18	-22				
14	-30	-31	-21	-31	-36	-28	-23	-18	-13	-10	-13	-18	-19	-19	-19	-19	-13	-6	-7	-7	-14	-28	-25	-21				
15	-17	-15	-19	-22	-15	-15	-18	-12	-13	-11	-5	-4	-8	-13	-3	-17	-6	-7	-12	-17	-19	-20	-22	-17				
16	-13	-15	-14	-11	-12	-17	-20	-18	-15	-14	-13	-12	-3	-2	2	4	8	6	4	-1	-5	-9	-7	-5				
17	-5	-0	-0	-8	-5	-3	-2	-3	-1	-4	-3	-5	-11	-12	-11	-3	0	-0	-6	-6	-4	-5	-4	-1				
18	-5	-9	-10	-8	-5	-2	1	4	9	8	9	8	5	5	2	1	1	-1	-1	-1	-1	-1	-0	2				
19	7	5	11	2	2	-3	-13	-15	-12	-6	-8	-9	-10	-11	-11	-9	-4	-3	-1	-0	-1	0	1	2				
20	-2	-3	-9	-10	-8	-3	-1	-1	2	2	2	0	-1	-4	-1	1	3	7	6	-1	-1	-1	-2	1				
21	3	0	3	4	2	2	-5	-7	-5	-2	-1	-1	-1	-4	3	1	0	4	9	9	2	2	6	10				
22	9	5	3	6	8	8	6	6	7	8	7	8	3	4	5	7	11	15	15	10	2	-5	-17	-8				
23	-1	-7	-9	-20	-21	-13	-10	-11	-8	-11	-15	-8	-3	-5	-17	-26	-18	-10	-10	-14	-19	-22	-20	-17				
24	-15	-13	-11	-9	-0	-5	-5	-5	-4	-5	-6	-6	-6	-6	-6	-5	-3	-2	-4	-11	-15	-13	-12	-9				
25	-5	-2	-2	-1	1	2	2	1	2	0	1	1	-2	-4	-4	-0	4	7	5	11	12	12	10	11				
26	8	7	7	9	10	12	11	10	12	17	17	19	15	14	11	8	7	11	14	19	20	19	18	17				
27	10	14	14	16	13	14	16	18	17	15	13	12	11	12	11	13	18	20	21	18	16	14	13	16				
28	17	14	10	17	19	19	19	17	20	22	16	17	15	14	13	13	19	21	21	21	20	16	17	17				
29	13	12	13	12	8	8	9	9	16	17	15	15	16	16	16	19	25	25	17	12	9	13	20	21				
30	18	10	14	14	10	18	20	21	23	22	20	15	15	14	15	19	19	23	24	17	4	-1	-3	-1				

OCT OBER 1958

DAY	UNIT=GAMMAS																						G.M.T.	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1	8	-4	-12	-20	-13	-12	-14	-12	-11	-13	-5	4	6	2	-5	-3	3	-6	-12	-17	-16	-8	-10	-14
2	-12	-20	-29	-25	-33	-41	-47	-38	-23	-25	-21	-22	-38	-31	-34	-39	-39	-35	-44	-45	-30	-32	-30	-28
3	-31	-24	-34	-31	-31	-31	-33	-37	-37	-34	-31	-27	-26	-33	-39	-35	-29	-25	-24	-24	-24	-20	-15	-12
4	-9	-13	-17	-20	-20	-19	-19	-19	-15	-15	-17	-20	-21	-22	-25	-25	-22	-22	-23	-15	-11	-6	-7	-8
5	-7	-7	-10	-9	-8	-9	-11	-14	-14	-13	-9	-10	-14	-17	-13	-17	-12	-9	-7	-5	-3	-2	-4	-1
6	-2	-2	-2	0	0	0	16	27	27	17	18	23	24	21	15	15	18	18	12	10	15	14	18	22
7	27	20	17	8	11	11	15	-1	-0	4	5	8	8	7	8	6	17	25	-0	-12	-17	-15	-8	-9
8	-9	-4	-4	-7	-7	-5	-3	-1	3	4	1	3	5	2	-2	-7	-3	2	-1	-4	-3	-2	-6	-7
9	-1	-6	-7	-6	-3	1	4	7	11	13	12	13	13	9	3	6	13	7	8	8	10	3	-2	-4
10	-6	-0	0	2	6	8	6	3	7	11	12	12	10	6	5	7	13	14	11	7	5	7	8	14
11	16	18	14	15	17	18	16	13	18	21	19	18	18	15	10	10	13	19	18	18	23	26	24	23
12	26	18	-2	-21	-35	-44	-37	-32	-31	-21	-28	-19	-17	-27	-29	-29	-27	-41	-61	-66	-76	-69	-54	-59
13	-56	-48	-44	-42	-41	-33	-35	-31	-28	-25	-24	-21	-30	-36	-42	-44	-35	-27	-24	-20	-20	-19	-20	-25
14	-25	-18	-22	-28	-23	-27	-27	-27	-25	-23	-20	-14	-13	-14	-17	-21	-18	-16	-13	-17	-16	-15	-12	-12
15	-9	-9	-10	-10	-9	-10	-12	-12	-11	-11	-7	-5	-8	-11	-16	-18	-15	-15	-14	-11	-10	-9	-9	-8
16	-6	-5	-7	-7	-4	-2	-7	-3	-1	1	3	5	6	4	-3	1	11	19	17	16	19	10	6	7
17	9	8	4	-1	1	-0	-5	-4	0	-1	3	4	3	5	0	0	7	5	1	-0	-4	-7	1	-2
18	6	7	9	10	7	7	5	3	-1	-3	3	8	8	3	0	3	13	16	15	10	10	13	9	8
19	9	9	0	3	5	5	6	5	6	10	15	14	13	15	15	13	15	16	16	-3	-24	-21	-18	-12
20	-9	-10	-8	-8	-8	-9	-11	-15	-13	-11	-10	-6	-6	-6	-4	-2	-2	-7	-7	-8	-5	-3	1	2
21	3	4	4	4	5	6	6	5	5	5	6	8	7	8	8	5	7	6	13	13	12	13	13	13
22	13	15	16	16	15	14	12	13	15	15	15	13	14	18	19	15	14	13	4	2	5	8	11	11
23	12	13	12	12	13	14	14	13	15	18	18	16	15	13	19	21	20	20	23	25	25	24	23	25
24	29	27	23	28	32	27	22	22	21	22	24	24	22	18	11	16	21	11	-6	-13	-4	-2	-1	1
25	3	0	8	7	5	4	6	5	-0	1	0	-1	-1	-0	-4	-4	-1	3	6	5	3	2	5	8
26	11	11	12	11	12	11	7	6	11	18	21	30	19	16	14	9	11	14	19	20	20	24	28	24
27	13	16	15	12	13	13	5	5	11	15	15	13	13	15	10	10	12	12	9	9	9	9	10	10
28	13	13	12	10	11	9	14	14	19	25	28	27	26	21	16	13	15	15	12	14	18	27	24	11
29	-1	-1	5	7	8	4	8	15	15	35	42	43	39	29	32	35	18	-46	-26	-17	-2	-42	-51	-49
30	-45	-40	-37	-28	-23	-20	-25	-28	-27	-22	-14	-19	-22	-28	-36	-34	-33	-23	-22	-16	-13	-13	-18	-19
31	-20	-29	-30	-31	-40	-45	-54	-44	-44	-15	-11	-34	-6	-25	-118	-183	-184	-199	-211	-208	-192	-170	-153	-140

NOVEMBER 1958

DAY	UNIT=GAMMAS																						S.M.T.	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1	-138	-141	-110	-109	-109	-106	-108	-107	-101	-87	-77	-69	-89	-111	-38	-124	-128	-131	-129	-159	-154	-133	-210	-192
2	-164	-172	-171	-175	-157	-150	-156	-156	-153	-123	-127	-120	-116	-109	-105	-97	-95	-79	-51	-55	-59	-67	-81	-91
3	-99	-103	-114	-103	-100	-101	-97	-90	-86	-82	-75	-71	-61	-57	-70	-71	-66	-59	-63	-66	-67	-70	-73	-69
4	-65	-62	-51	-51	-57	-45	-47	-57	-61	-54	-46	-41	-47	-51	-52	-50	-46	-43	-43	-41	-48	-46	-40	-42
5	-44	-44	-45	-43	-44	-44	-46	-47	-46	-45	-43	-39	-35	-33	-31	-35	-35	-34	-25	-25	-27	-27	-29	-26
6	-25	-23	-26	-30	-23	-29	-30	-28	-25	-23	-23	-23	-25	-22	-21	-20	-19	-17	-12	-15	-18	-13	-13	-28
7	-37	-34	-30	-43	-40	-50	-44	-39	-35	-35	-36	-41	-39	-39	-30	-24	-23	-23	-24	-21	-18	-18	-18	-20
8	-19	-19	-19	-21	-21	-24	-27	-25	-25	-26	-26	-23	-30	-29	-32	-32	-29	-27	-20	-21	-30	-32	-34	-36
9	-32	-30	-31	-32	-30	-23	-21	-20	-24	-22	-25	-18	-18	-29	-35	-36	-33	-26	-23	-21	-19	-20	-20	-13
10	-20	-19	-19	-20	-20	-25	-28	-29	-27	-27	-27	-23	-21	-18	-13	-18	-22	-25	-27	-24	-27	-29	-28	-27
11	-22	-20	-32	-23	-23	-32	-34	-29	-25	-28	-29	-30	-32	-26	-23	-23	-21	-23	-20	-15	-15	-16	-17	-18
12	-18	-14	-15	-10	-17	-13	-18	-10	-13	-13	-14	-16	-15	-15	-12	-8	-8	-6	-4	-4	-4	-3	-3	-4
13	-3	-2	1	1	-1	-4	-3	-2	3	1	-0	-1	-0	2	2	-1	-4	-4	-1	-3	-11	-11	-7	-6
14	-7	-6	-5	-2	1	-0	-0	3	5	4	5	6	8	12	13	10	9	3	7	6	6	-3	4	9
15	5	10	3	10	10	10	9	3	3	2	1	2	3	2	1	-0	-3	-2	-1	1	0	1	1	1
16	1	1	0	1	-1	-0	0	1	5	20	27	37	37	33	49	50	49	43	42	33	19	5	-5	8
17	6	-3	3	1	1	-3	-10	-7	-14	-15	-11	-9	-5	-2	-11	-22	-29	-42	-42	-44	-57	-65	-66	-61
18	-54	-50	-54	-59	-51	-63	-67	-70	-67	-53	-48	-45	-43	-37	-29	-25	-14	-8	-11	-13	-15	-22	-27	-27
19	-28	-23	-24	-27	-20	-34	-35	-30	-23	-17	-16	-18	-19	-13	-11	-9	-7	-4	-4	-8	-12	-10	-7	-4
20	-5	-3	-6	-18	-17	-15	-4	-2	-3	18	21	17	12	-3	-20	-36	-33	-37	-40	-39	-31	-24	-19	-18
21	-17	-14	-15	-19	-22	-21	-20	-24	-29	-27	-25	-25	-24	-21	-19	-20	-24	-25	-28	-23	-18	-18	-23	-22
22	-20	-19	-17	-15	-13	-11	-14	-16	-19	-20	-16	-13	-11	-10	-5	-1	-0	1	3	-1	-1	-3	-3	-1
23	-0	-2	-5	-8	-10	-8	-3	-6	-8	-12	-11	-10	-8	-3	-1	2	4	8	10	9	8	8	11	16
24	20	22	19	16	14	13	17	18	19	19	17	17	15	15	13	19	29	28	25	24	25	24	21	21
25	16	12	14	10	13	17	15	18	18	13	8	6	3	-2	1	-1	-3	-0	-3	-7	-3	-1	-1	-1
26	1	3	5	5	6	10	10	9	4	0	-3	2	4	7	4	-0	-3	-3	1	-2	-3	1	-4	-6
27	-0	-4	-3	-5	-5	-3	-4	-8	-9	-9	-5	-4	-1	0	3	1	3	6	8	-7	-11	-10	-5	-7
28	-9	-4	-4	-4	-2	3	3	1	-3	-8	-12	-12	-9	-4	-3	-3	-3	1	-7	-2	5	13	8	7
29	8	10	12	10	5	5	5	2	1	1	-3	0	-1	-5	-5	-4	0	1	2	3	5	4	4	4
30	4	0	5	2	1	4	7	8	8	5	6	6	1	-0	1	1	3	2	-1	-1	-3	1	1	-3

DECEMBER 1958

DAY	UNIT=GAMMAS																								S.M.T.	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
1	-4	-9	-9	-8	-9	-7	-2	3	4	4	-4	-9	-5	-8	-8	-12	-15	-17	-14	-12	-7	-1	-2	-3		
2	-2	1	4	3	3	0	8	9	7	2	10	12	14	12	12	9	3	4	5	6	6	10	2	1		
3	3	8	8	-4	-11	-13	-8	-5	-8	-8	-8	-3	-7	-12	-15	-16	-25	-32	-31	-35	-37	-33	-30	-27		
4	-20	-7	-5	-6	-6	-6	-9	-18	-26	-27	-23	-15	-11	-10	-11	-17	-25	-21	-21	-27	-27	-21	-22	-22		
5	-21	-15	-12	-14	-19	-18	-5	3	-3	-11	-16	-7	-3	-4	-10	-16	-15	-18	-22	-26	-29	-36	-42	-45		
6	-48	-40	-25	-29	-25	-22	-21	-22	-25	-23	-20	-17	-15	-14	-12	-12	-9	-8	-11	-14	-16	-14	-12	-12		
7	-15	-12	-10	-13	-13	-12	-10	-7	-5	-3	-1	2	2	1	-0	-3	-7	-10	-10	-12	-9	-9	-9	-12		
8	-12	-10	-7	-8	-10	-11	-12	-15	-11	-11	-12	-11	-10	-9	-3	-0	-4	-3	-12	-21	-16	-10	-13	-21		
9	-17	-13	-11	-11	-9	-4	-0	1	-2	-6	-5	-1	1	1	3	1	0	2	-5	-13	-19	-16	-12	-14		
10	-21	-6	2	2	0	0	2	-3	-6	-9	-5	-8	-12	-12	-11	-10	-10	-6	-4	-4	-13	-17	-17	-19		
11	-13	-5	-2	-4	-5	-3	0	3	3	2	2	3	1	1	3	11	7	-1	-4	-9	-1	3	3	-4		
12	-10	-16	-17	-14	-10	-7	0	3	-0	-6	-3	1	-2	-5	-5	-5	-6	-7	-10	-16	-13	-8	-9	-12		
13	-12	-10	-5	-5	-2	0	3	6	3	1	-3	-1	-3	-2	-1	-5	-11	-13	-11	-5	-13	-13	-14	-17		
14	-15	-10	-9	-8	-7	-5	-5	-2	-3	-2	-5	-2	0	-2	-4	-3	-2	-1	-3	-4	-3	-2	-2	-3		
15	3	4	9	10	9	8	4	2	7	9	8	6	6	11	14	7	3	6	6	4	-1	-6	-2	4		
16	10	15	11	4	-0	1	-0	3	5	1	-2	-3	-1	-3	-1	0	-3	-7	-3	2	-2	-5	-5	-6		
17	-7	-7	-5	-4	-2	-2	-5	-2	-0	-1	-1	-1	-1	0	3	4	4	7	7	4	3	3	-0	-1		
18	2	5	3	3	10	15	13	9	13	18	21	25	25	19	10	9	11	16	13	8	5	-4	-5	-6		
19	-3	-5	-1	1	-0	-5	-11	-7	-1	6	8	12	8	4	7	5	2	-3	-5	0	9	9	3	4		
20	7	11	13	13	15	12	11	8	2	7	21	21	19	17	19	20	15	11	11	12	11	3	4	7		
21	5	8	3	3	8	6	4	3	4	1	5	2	3	10	13	11	2	-11	-5	1	3	-3	-15	-9		
22	-12	-9	-3	-14	-10	-8	-7	-15	-19	-19	-15	-9	-9	-4	-4	-2	-7	-14	-9	-2	-4	-5	-5	-5		
23	-2	5	4	2	2	5	6	6	-1	-7	-13	-11	-6	-13	-21	-21	-17	-15	-13	-12	-9	-10	-17	-17		
24	-11	-10	-11	-12	-10	-8	-7	-10	-14	-13	-18	-16	-17	-17	-15	-10	-8	-9	-9	-5	-1	2	6	22		
25	12	11	17	5	-10	-8	26	11	10	-9	13	13	5	5	3	-9	-6	-4	-1	1	0	-2	-4	-6		
26	-4	-0	3	2	2	3	5	8	6	2	-1	-5	-4	-5	-3	-2	1	5	5	10	7	7	10	12		
27	0	7	7	7	11	13	22	19	15	-2	-15	-17	-21	-21	-24	-20	-15	-11	-7	-4	-1	-3	-11	-14		
28	-14	-10	-8	-9	-6	-0	8	14	12	8	6	6	-6	-3	-3	-3	-1	-3	-2	-4	-7	-4	-1	-4		
29	-7	-3	-0	2	5	9	12	14	14	11	7	7	2	0	-1	-2	-8	-13	-14	-15	-15	-15	-19	-22		
30	-17	-13	-9	-5	-5	-6	-3	-1	-0	0	-4	-2	-4	-7	-7	-2	-1	-6	-7	0	-0	4	2	-5		
31	-10	-5	1	-1	1	3	4	3	1	5	7	11	13	9	5	4	2	-4	-7	-9	-10	-13	-14	-13		

Table 5 - Daily means of equatorial Dst for 1968.

DAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
1	-69	-3	-32	-39	-7	6	-9	11	-5	-8	-123	-6
2	-63	-17	-26	-22	-10	-10	-3	7	4	-32	-119	6
3	-49	-23	-31	-13	0	-2	-4	10	4	-29	-80	-15
4	-28	-35	-33	-19	1	1	-4	10	-0	-17	-53	-17
5	-17	-20	-37	-24	4	0	1	14	1	-10	-37	-17
6	-23	-16	-27	-30	17	3	6	8	-2	14	-23	-19
7	-18	-2	-20	-21	-32	9	4	-2	-3	6	-32	-7
8	-10	-17	-12	-11	-23	11	8	-1	-62	-2	-25	-11
9	-4	-36	-6	3	-30	7	14	-1	-13	5	-26	-6
10	-5	-36	-9	-1	-6	-20	-2	2	-11	7	-24	-8
11	-0	-39	-11	7	3	-59	-9	2	-4	18	-25	-0
12	-19	-49	-9	13	-9	-56	-6	9	-4	-33	-11	-7
13	-22	-27	-1	-10	-1	-54	-5	13	-23	-32	-2	-6
14	-22	-11	-4	-16	4	-39	-26	-6	-20	-19	4	-4
15	-22	-18	-21	-9	1	-19	-10	-15	-14	-11	3	5
16	-18	-22	-13	-6	-13	-13	5	-21	-3	3	19	0
17	-11	-17	-13	-3	-3	-24	2	-28	-5	1	-21	-0
18	-7	-32	-7	4	-6	-17	-3	-18	1	7	-40	10
19	-6	-28	-4	5	-6	-19	4	-10	-4	5	-17	2
20	-8	-29	-10	7	-16	-1	4	-7	-1	-7	-13	12
21	-12	-33	-7	15	-22	5	9	-2	2	7	-22	2
22	-1	-17	-5	1	-24	-4	-7	4	5	13	-9	-9
23	-3	-11	2	-12	-12	-7	-7	-10	-13	18	-1	-7
24	-1	-11	-17	-10	-22	5	3	-14	-8	15	20	-9
25	-1	-8	-20	4	-10	10	11	-4	3	3	6	3
26	-1	-2	-13	-19	-1	20	7	-1	13	16	2	3
27	-9	-3	-32	-19	12	11	-4	7	15	12	-3	-3
28	-22	-33	-13	-13	10	7	3	10	13	17	-2	-2
29	-25	-49	-23	-13	-3	8	5	13	15	4	3	-2
30	-20	0	-34	-5	5	-2	11	16	15	-26	3	-4
31	-5	0	-29	0	-1	0	7	-2	0	-91	0	-1
MEAN	-17	-24	-17	-9	-7	-8	0	-0	-4	-5	-22	-4
ANNUAL MEAN											-10	

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